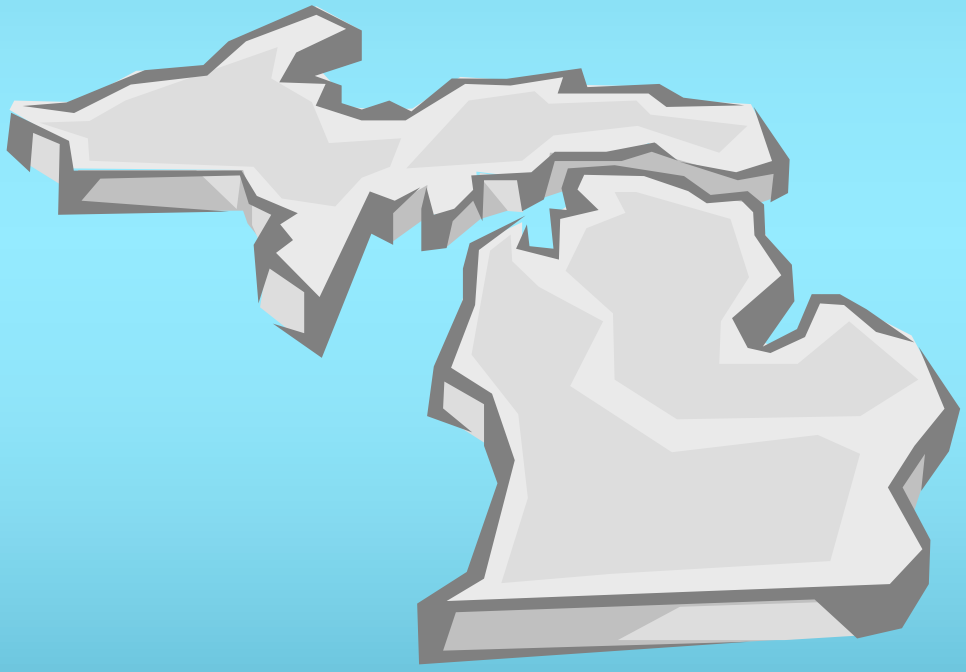
INJURY PREVENTION PLAN



Michigan Injury Prevention Task Force
and
Michigan Department of Community Health
Injury Prevention Section
2003

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EXECUTIVE SUMMARY

Introduction

Injuries are an extremely costly, tragic and largely preventable public health problem. Injuries can be unintentional, such as those caused by motor vehicle crashes, and intentional, such as suicides and homicides. Not only are injuries are a leading cause of death and disability in both Michigan and the United States, they also result in much physical and emotional suffering and are very costly in terms of medical care expenditures, lost income and lost productivity.

Over the past two decades, the public health community has replaced the term "accident" with "injury" for both fatal and non-fatal events. "Accident" implies that the injury events happened by chance or were random; research and experience now demonstrate that most injury events are predictable as well as preventable.

Understanding the causes and behavior patterns that put people at risk for injuries is the first step toward development of injury and violence prevention and control strategies. Drawing on the multidisciplinary experience of diverse injury prevention experts, this strategic plan was formulated to build Michigan's capacity to continue, and in some cases begin, to reduce the number of injury- and violence-related deaths and disabilities throughout the state. This plan outlines the background and critical recommendations for developing a comprehensive injury and violence prevention and control program in Michigan.

Background

In October 2000, the Michigan Department of Community Health (MDCH) Injury Prevention Section (IPS) received a Core Injury Capacity-Building grant from the Centers for Disease Control and Prevention (CDC). By receiving this grant award, Michigan agreed to prepare a three-year strategic plan with recommendations for building a comprehensive injury prevention and control program in the state. The goal of this state plan for injury prevention is to guide Michigan's efforts in reducing injury and violence-related deaths and disabilities.

To develop this plan, it was important and necessary for the IPS to collaborate with agencies and groups having expertise in a wide variety of injury and violence-related topics and research areas. Starting in November 2001 and continuing through April 2002, a 25-member Injury Prevention Workgroup and a 50-member Injury Prevention Task Force were convened to assist the IPS in developing the plan. Members of both the Workgroup and Task Force represented state and local agencies, private and non-profit groups, academia, law enforcement, public health, health care and injury prevention coalitions.

Magnitude of Michigan's Injury Problem

Despite mounting evidence that almost all injuries are preventable, they remain one of public health's most costly, tragic and under-recognized problems. In 2001, injuries (unintentional injuries, suicides and homicides) were the fourth leading cause of death among Michigan residents and were the leading cause of death for Michigan residents up to age 34. Between 1999 and 2001, an average of 5,232 Michigan residents died each year due to injuries, including just over 600 deaths annually to children. One out of every four Michigan citizens sustains an injury each year and although injuries affect persons of all ages, 80% occur to people under the age of 45 years. Motor vehicle crashes, falls and poisonings were the leading causes of unintentional injury death from 1999-2001.

Injuries not only result in mortality and short- and long-term disability, they result in more productive years of life lost than any other cause, largely because of their impact on younger populations. There are, on average, 36 years of life lost per injury death. Although the greatest cost of injury is in human suffering and loss, increasing health care expenditures are allocated to the treatment and rehabilitation of Michigan residents with injuries, with the overall annual medical cost of injury for Michigan in 1997-1998 at almost $3.6 billion. When work loss and quality of life costs are considered, injuries are a $54.9 billion problem for Michigan.

In view of the magnitude of Michigan's injury problem, there is a need for building a comprehensive, coordinated and strengthened statewide injury prevention and control program.

Focus of the Strategic Plan

The strategic plan makes recommendations to build the core capacity of the state injury program as well as impact the top four priority causes of injury in Michigan. **Core capacity recommendations** focus on the elements of a state injury program - data, interventions, technical support and training, public policy and infrastructure - and how these elements strengthen the state injury program's ability to impact all injury causes. **Injury reduction recommendations** focus on how to reduce morbidity and mortality from the top four priority causes of injury.

Recommendations Related to Core Components

Data - Collection, Analysis and Dissemination:

- The Michigan Department of Community Health (MDCH) should collaborate with the Michigan Health and Hospital Association (MHA) and the Michigan Health Information Management Association (MHIMA) to convene a core Data Workgroup with expertise to examine the state's injury data infrastructure and injury data sources and make recommendations to improve quality of injury data.

- Seek resources to ensure funding for critical injury surveillance data sources such as the Michigan Emergency Department Community Injury Information Network (MEDCIIN) and the Uniform Medical Examiner Data System (ME Reporting System) for selected causes of injuries.

- Develop, publish and disseminate annual comprehensive reports of injury data.

- Ensure that injury data are web-accessible and data sources include injury mortality, injury hospitalizations and injury emergency department visits.

- MDCH should provide data to support the development of Health Michigan 2010 injury objectives.

Interventions - Design, Implementation and Evaluation:

- Publicize information on the best programs, practices and interventions with proven effectiveness to address the leading causes of injury.

- Develop and/or implement evidence-based prevention programs to address *emerging* injury prevention issues such as falls, suicides, poisoning and firearm-related injuries.

- Develop a mechanism to bring people in Michigan together to focus on current injury prevention efforts, what works and what looks promising.

- Identify and develop ways through which agencies and organizations can maintain ongoing communication and collaboration on interventions, such as through a virtual statewide community.

- Determine baseline information on consumers' awareness and motivation to change related to specific injury prevention issues.

- Implement creative approaches for developing public and professional awareness in injury prevention that will motivate and enable people to proactively change their behavior.

- Build comprehensive, multi-faceted media campaigns on specific injury prevention issues.

Technical Support and Training:

- Identify, catalog and evaluate existing research and evidence-based injury prevention curricula.

- Develop an injury prevention kit and/or resource guide to be used by the public and injury providers and publicized in media campaigns.

- Provide centralized technical support and training to develop state and community-based injury prevention capacity.

Public Policy:

- Develop a focal point or clearinghouse for injury prevention by having one central, well-known program serve as an information source for injury data, injury prevention programs, laws and research.

- MDCH and public injury prevention programs should form partnerships with a major Midwest university and the Michigan Council of Foundations to establish a Michigan Institute for Injury Prevention that will study the costs and economics of injury in Michigan and the value of injury prevention programs.

- Develop grassroots support for injury prevention programs, laws and research by establishing a statewide coalition with public and private partners.

- Develop an active communication system with local partners (listserve) to share information on legislation related to injury and other time-sensitive information.

Infrastructure:

- MDCH should establish, maintain and enhance a core focus for the state's injury prevention activities (initiatives and funding).

- MDCH should assess injury prevention resources and needs in government, private, and non-profit agencies to develop an overview of the injury prevention infrastructure in Michigan.

- MDCH should promote coordination of MDCH funding and activities with other agencies.

Recommendations Related to Priority Causes of Injury

Poisoning: Unintentional/Self-Inflicted

Infrastructure

- The MDCH Injury Prevention Section should convene a Poison Prevention Workgroup consisting of representatives from at least the Poison Control Centers, MDCH Bureau of Epidemiology, Substance Abuse and Injury Prevention, to provide guidance to the Section regarding primary prevention of poisoning.

Data

- The Poison Prevention Workgroup should develop a data analysis plan and prepare a report based on various data sources, including Poison Control Centers, hospital discharge (MIDB), emergency department (MEDCIIN), death certificates, Medical Examiner and Child Death Review. The role of poisoning relative to other types of injuries should be considered.

- The Poison Prevention Workgroup should review deliberations of the Poison Control Center death reviews and make recommendations for prevention.

Interventions

- The Poison Prevention Workgroup should identify and compile information on MDCH programs that deal with poisoning.

- The Poison Prevention Workgroup should review data, conduct an inventory of best practices related to poisoning prevention and prepare recommendations for effective prevention interventions for the top five causes of poisonings in Michigan.

- The MDCH Injury Prevention Section should publicize the toll-free Poison Control number and provide poison prevention educational materials (developed by the Poison Control Centers) through Safe Kids Coalitions and Chapters, child passenger safety technicians and instructors, and other partners who work closely with children and parents.

- The MDCH Injury Prevention Section website should provide a link with the Poison Control Center website.

Technical Support and Training

- Poison Control Centers should work with the Michigan College of Emergency Physicians to develop training materials for ED physicians to increase their awareness of the expertise available at Poison Control Centers.

Public Policy

- The Poison Prevention Workgroup should conduct an inventory of local and national policies that impact poisoning and compare and contrast to Michigan policies.

Firearm-Related Suicide and Homicide

Infrastructure

- MDCH, in collaboration with the Michigan Partnership to Prevention Gun Violence and other interested agencies, should facilitate the formation and functioning of a communication/collaboration network focusing on firearm morbidity and mortality.

- MDCH, in collaboration with the Michigan Partnership to Prevention Gun Violence and other interested agencies, should investigate funding to develop a focus on firearm-related injuries, specifically developing and implementing an effective, evidence-based firearm injury prevention and education safety program.

Data

- MDCH, in collaboration with the Michigan Partnership to Prevention Gun Violence and other interested agencies, should strongly support efforts to collect comprehensive firearm morbidity and mortality data.

- MDCH should facilitate the collection of firearm mortality data and participate in the National Violent Death Reporting System.

- MDCH should identify the demographics of individuals with the highest rates of intentional firearm injuries.

- The Injury Prevention Clearinghouse should serve as a warehouse for the most current and comprehensive firearm-related homicide and suicide data available in the state.

Interventions

- MDCH, in collaboration with the Michigan Partnership to Prevention Gun Violence and other interested agencies, should develop and implement criteria for determining effective or promising programs, practices and interventions in firearm-related homicide and suicide.

- MDCH, in collaboration with the Michigan Partnership to Prevention Gun Violence and other interested agencies, should support the implementation at state and local levels of effective, evidence-based firearm safety education initiatives.

- MDCH, in partnership with university-based researchers, should examine and evaluate the effectiveness of current state-sponsored firearm injury prevention efforts.

- MDCH, in collaboration with the Michigan Partnership to Prevention Gun Violence, the Michigan Association of Suicidology, and other interested agencies, should

identify effective evidence-based suicide intervention strategies and incorporate these into their firearm safety initiatives.

- Resources should be sought to develop and implement a public information campaign on firearm safety, with an emphasis on informed decision-making around firearm ownership and changing the social norms around parents asking about firearm ownership and storage in the homes that their children visit, that would collaborate with existing state firearm safety and education programs.

- MDCH should work with the Michigan Chapter of the American Academy of Pediatrics to educate their members and strongly encourage them to engage in anticipatory guidance on the issues of firearms, suicide and violence with patients and their families.

- MDCH and the Family Independence Agency should continue to support primary and secondary prevention and intervention programs for intimate partner violence and sexual assault.

- MDCH should require that all MDCH funded firearm injury, violence, intimate partner violence, and sexual assault prevention efforts should have both a process evaluation and impact assessment.

Technical Support and Training

- MDCH should collaborate with other state agencies' training efforts focusing on firearm safety and education.

Public Policy

- MDCH should promote through firearm safety education and public service campaigns that all firearm injuries and deaths in Michigan are a public health issue.

- MDCH, in collaboration with the Michigan Partnership to Prevention Gun Violence and other interested agencies, should continue to support strong enforcement of substance abuse laws and firearm regulations in Michigan and incorporate discussion of these into firearm safety initiatives sponsored by MDCH.

- MDCH should partner with other state and local agencies to develop firearm safety campaigns that target identified high-risk populations.

- MDCH, in partnership with university-based researchers, should examine and evaluate the impact and the effectiveness of Michigan's current CCW (concealed-carry weapons) laws in reducing firearm injuries in Michigan.

Unintentional Falls in Older Adults Over the Age of 65

Infrastructure

- MDCH should reconvene and expand the membership of the Fall Prevention Workgroup to include public health, health care, and agencies that work with older adults.

- The Fall Prevention Workgroup should assist MDCH in implementing the recommendations in the *White Paper on Fall Prevention Efforts in Michigan,* reviewing existing fall prevention efforts in Michigan and nationwide, and providing direction for new fall prevention program development.

- Resources should be sought to support staff resources devoted to prevention of injuries among older adults, including fall prevention.

- Resources should be sought to fund evidence-based community fall prevention projects, public education and training of professionals.

Data

- The Fall Prevention Workgroup should monitor the magnitude, characteristics and costs of falls and fall injuries specifically for older adults through analysis of existing data sources, including death certificates, hospital discharge, emergency department and risk factor data bases.

- The Fall Prevention Workgroup should work with the Data Workgroup to improve the level and accuracy of E-coding for fall-related injuries on hospital discharge data and disseminate the results via annual reporting and the MDCH injury website.

Interventions

- The Fall Prevention Workgroup should develop and implement criteria for determining effective or promising programs, practices, and interventions in fall prevention for older adults.

- The Fall Prevention Workgroup should identify, evaluate, and catalog evidence-based fall prevention programs and interventions and develop marketing strategies for dissemination to injury practitioners, health care providers and older adult advocates.

- The Fall Prevention Workgroup should partner fall prevention programs with other health promotion programs such as physical fitness, osteoporosis education and bone mineral testing, either on the statewide or local level.

- ❖ The Fall Prevention Workgroup should determine the most effective messages, materials and delivery mechanisms for fall prevention public education, focusing on risk factor identification, behaviors that reduce risk and evidence-based treatment and behavioral interventions.

Technical Support and Training

- ❖ The Fall Prevention Workgroup should work with existing professional organizations, injury prevention practitioner groups and older adult advocates to develop and expand resources to meet their training needs for fall risk assessment, data collection and coding and evidence-based interventions.

- ❖ The Fall Prevention Workgroup should determine the most effective strategies for educating injury practitioners, health care providers and older adult advocates in fall risk assessment, interventions to reduce fall risks and interdisciplinary case management of older adults who have fallen.

- ❖ The Fall Prevention Workgroup should establish a network of practitioners, professionals and advocates for older adults at the local level for dissemination of fall prevention information, technical assistance and training.

- ❖ The Fall Prevention Workgroup should make fall prevention resources such as fall risk assessment tools, evidence-based programs and names of fall prevention experts available on the MDCH injury website.

Public Policy

- ❖ Information should be provided to policy makers on fall injury and prevention for older adults.

- ❖ Funding resources should be sought for fall injury prevention programs for older adults.

Motor Vehicle Crashes – Occupants

Infrastructure

- ❖ MDCH should participate on the Governors' Traffic Safety Advisory Commission to provide input on effective public health interventions to promote safety belt and child restraint use among high-risk populations and engineering solutions (i.e., traffic calming) to promote safer driving behavior.

Data

- ❖ MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should identify and link data sources related

to motor vehicle crashes, focusing on restraint use, the proportion of crashes that results in death or serious injury and the behavioral factors (i.e., alcohol use, distracted driving, excessive speed) related to crash outcomes.

- ❖ MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should create a system for dissemination of crash-related data back to local community-based public information and education programs such as Safe Communities.

Interventions

- ❖ MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should review what other states have accomplished in coordination of occupant protection activities to avoid duplication of efforts and to streamline funding sources.

- ❖ MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should identify, evaluate and catalog existing occupant protection education programs so that they can be utilized by new or emerging community-based educational efforts through web-based access.

- ❖ MDCH, in cooperation with SAFE KIDS, should develop and implement a safety belt education program for children aged 9 – 16.

- ❖ The Michigan Office of Highway Safety Planning should continue to allocate funding with a strong emphasis, via education and enforcement, on low safety belt user groups to include males aged 16-24 and pick-up truck drivers.

- ❖ MDCH should support the Michigan Office of Highway Safety Planning's efforts to evaluate the need for blood alcohol testing equipment in rural and urban areas based on population and geographic location.

Technical Support and Training

- ❖ MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should assess educational needs and develop appropriate training programs in motor vehicle safety and occupant protection for targeted groups including engineers and health care providers such as physicians and nurses.

- ❖ MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should promote the education of law enforcement regarding traffic violations by trucks.

Public Policy

- MDCH, partnering with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should participate in a legislative forum to educate policy makers of the need for strengthening seat belt laws, child passenger safety laws and graduated licensing laws as strategies to increase restraint use in Michigan and reduce crash-related fatalities and injuries and related high health care costs.

- MDCH, partnering with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should support enhanced driver's license testing (i.e., having the driver's license renewal with license plate renewal) as a way to ensure safer driving behaviors, especially among older adult drivers who have the highest ratio of motor vehicle deaths to motor vehicle injuries.

Introduction

Injuries are an extremely costly, tragic and largely preventable public health problem. Injuries can be unintentional, such as those caused by motor vehicle crashes, and intentional, such as suicides and homicides. Not only are injuries are a leading cause of death and disability in both Michigan and the United States, they also result in much physical and emotional suffering and are very costly in terms of medical care expenditures, lost income and lost productivity.

Over the past two decades, the public health community has replaced the term "accident" with "injury" for both fatal and non-fatal events. "Accident" implies that the injury events happened by chance or were random; research and experience now demonstrate that most injury events are predictable as well as preventable.

Understanding the causes and behavior patterns that put people at risk for injuries is the first step toward development of injury and violence prevention and control strategies. Drawing on the multidisciplinary experience of diverse injury prevention experts, this strategic plan was formulated to build the Michigan's capacity to continue, and in some cases begin, to reduce the number of injury- and violence-related deaths and disabilities throughout the state. This plan outlines the background and critical recommendations for developing a comprehensive injury and violence prevention and control program in Michigan.

Background

In October 2000, the Michigan Department of Community Health (MDCH) Injury Prevention Section (IPS) received a Core Injury Capacity-Building grant from the Centers for Disease Control and Prevention (CDC). In receiving this grant award, Michigan agreed to prepare a three-year strategic plan with recommendations for building a comprehensive injury prevention and control program in the state. The goal of this state plan for injury prevention is to guide Michigan's efforts in reducing injury-related deaths and disabilities.

To develop this plan, it was important and necessary for the IPS to collaborate with agencies and groups having expertise in a wide variety of injury-related topics and research areas. Starting in November 2001 and continuing through April 2002, a 25-member Injury Prevention Workgroup and a 50-member Injury Prevention Task Force were convened to assist the Injury Prevention Program in developing the plan. Members of both the Workgroup and Task Force represented state and local agencies, private and non-profit groups, academia, law enforcement, public health, health care and injury prevention coalitions.

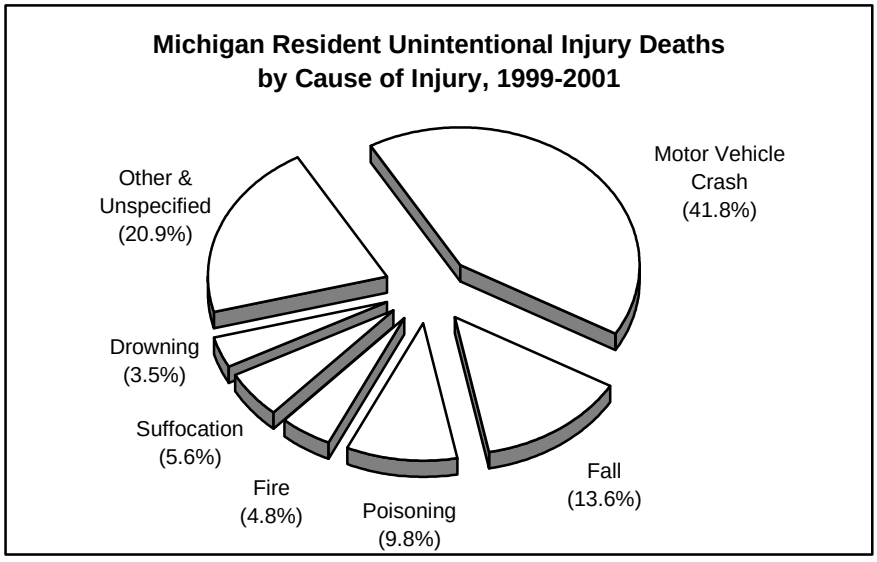
Multidisciplinary collaboration is acknowledged as the basis of effective planning for injury prevention and control. All members of the Workgroup and Task Force had an active collaborative history in working with the state injury prevention programs in providing access to data; educational programs; program design, implementation and

evaluation; and research and policy advice. Input from concerned agencies, groups and professionals in Michigan's Upper Peninsula was obtained from the two workgroups convened by the Delta County Safe Kids Chapter. The Upper Peninsula workgroups met separately from the Injury Prevention Workgroup and Task Force.

The resulting plan and its recommendations describe building Michigan's core capacity to address both intentional and unintentional injuries.

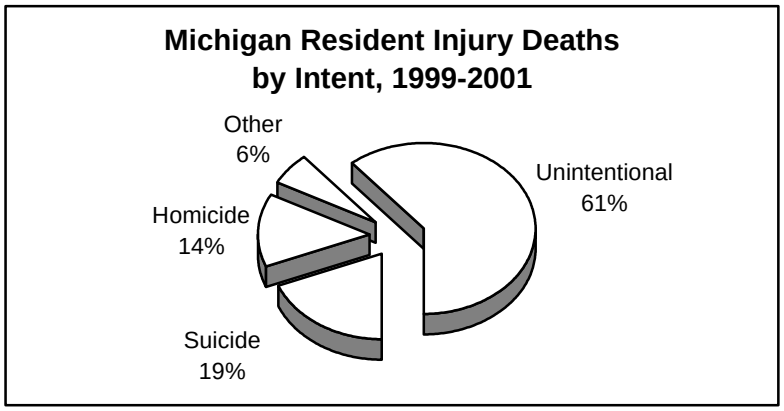
Magnitude of Michigan's Injury Problem

Despite mounting evidence that almost all injuries are preventable, they remain one of public health's most costly, tragic and under-recognized problems. In 2001, injuries (unintentional injuries, suicides and homicides) were the fourth leading cause of death among Michigan residents and were the leading cause of death for Michigan residents up to age 34. Between 1999 and 2001, an average of 5,232 Michigan residents died each year due to injuries, including just over 600 deaths annually to children. One out of every four Michigan citizens sustains an injury each year. Although injuries affect persons of all ages, 80% occur to people under the age of 45 years.[1] Motor vehicle crashes, falls and poisonings were the leading causes of unintentional injury death from 1999-2001.

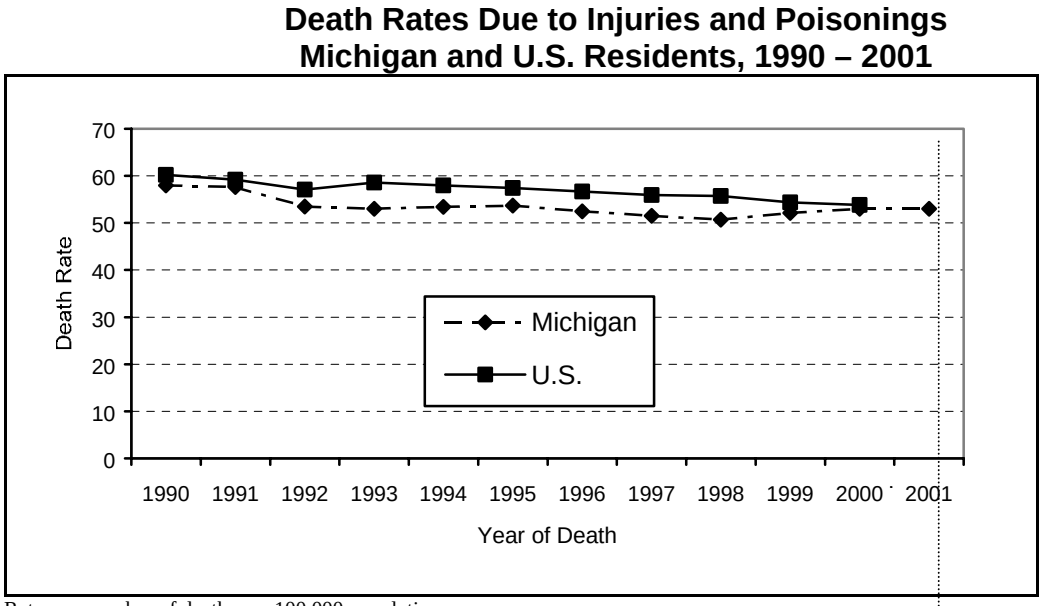


Injuries not only result in mortality and short- and long-term disability, they result in more productive years of life lost than any other cause, largely because of their impact on younger populations. There are, on average, 36 years of life lost per injury death. Although the greatest cost of injury is in human suffering and loss, increasing health care expenditures are allocated to the treatment and rehabilitation of Michigan residents with injuries, with the estimated overall annual medical cost of injury for Michigan in 1997-1998 at almost $3.6 billion. When work loss and quality of life costs are considered, injuries are estimated to be a $54.9 billion problem for Michigan.[2]

Unintentional injuries are injuries that the general public has historically referred to as "accidents." These include car crashes, fires, falls, poisonings, suffocation, being struck by objects and other causes. Unintentional injuries represent about two-thirds of all injury deaths. Intentional injuries result from purposeful human action, whether directed at oneself or others, and include homicides and suicides. About one-third of all injury deaths in Michigan are from intentional injuries.



Through most of the 1990s, Michigan's injury death rate has been slightly lower than the national rate, however, Michigan's rate has approached the national rate starting in 1999.



Rates are number of deaths per 100,000 population.
1990-1998: ICD-9 codes E800 – E999
1999-2001: ICD-10 codes V01 – Y89
Sources: Vital Records and Health Data Development Section, MDCH, Web-based Injury Statistics Query and Reporting System, U.S. Centers for Disease Control and Prevention, U.S. Census Data

* Starting in 1999, cause of death has been coded using ICD-10, a completely different coding system than ICD-9. Thus, for certain causes of death, differences in numbers and rates of death in pre- and post-1999 data may be due to this change in coding systems.

Alcohol and Injuries

Alcohol is a risk factor or contributing factor for most types of injuries – both intentional and unintentional. The CDC reports that in 1998, 38% of traffic fatalities were alcohol-related, as were approximately 40% of deaths associated with residential fires and between 25-40% of deaths from drowning.[3] Alcohol abuse is among the risk behaviors associated with fall injuries and firearm-related suicides and homicides. The Workgroup, therefore, recognized evidence-based alcohol control strategies as a cross-cutting issue that needs to be considered in planning and implementation of injury prevention programs.

MDCH Injury Prevention Program

The good news is that most injuries are preventable through increased use of safety equipment, environmental modification and behavior changes. It has been proven that injuries are not "accidents." Injuries occur in patterns and risk factors can be identified, and just as for chronic and infectious diseases, effective prevention strategies do exist.

In view of the magnitude of Michigan's injury problem, there is a need for building a comprehensive, coordinated and strengthened statewide injury prevention and control program. The injury prevention capacity within MDCH has grown in response to recognition at both state and national levels that injury is a critical public health problem. The department established the injury prevention program in the late 1980's. Originally, it was responsible for reducing morbidity, mortality and risk behaviors related to unintentional injuries. The MDCH Violence Prevention Section was established in 1994 to assist in the implementation of the recommendations from the Michigan Task Force on Interpersonal Violence Prevention and Reduction. Until 2002 at which time the section was eliminated due to state budget cuts, this program was the main provider of support in Michigan for community-based primary prevention programs related to intentional injury. It provided grants to community agencies and others for intervention programs and coalitions related to sexual assault, youth violence, domestic violence and general violence. Currently, the Injury Prevention Program addresses both unintentional and intentional injuries and provides leadership, training, public education, funding support and technical assistance for the development, implementation and evaluation of community-based primary prevention programs and surveillance related to the leading causes of all types of injuries.

Need for Core Program Development

STAT Review

In June 2000, Michigan participated in a State Technical Assessment Team (STAT) review sponsored by the State and Territorial Injury Prevention Directors Association (STIPDA) and CDC. Michigan was the second of three states to assist in piloting this new assessment process in which state-level injury prevention programs are compared to the model outlined in the *SAFE STATES: Five Components on a Model State Injury*

Prevention Program and Three Phases of Program Development.[4] The report generated as a result of this visit pointed out critical and strategic actions the program should consider to solidify, strengthen and otherwise improve its ability to lead the effort to prevent injuries in the state.[5]

Based on input from the STAT review, it was determined that the Michigan Department of Community Health has an intermediate-level injury prevention program. The program has been successful in building moderate to strong capacity in each of the five core components defined for a model state injury prevention program for certain population groups and particular types and causes of injuries. These five core components are:

I. Data - collection, analysis and dissemination
II. Interventions – design, implementation and evaluation
III. Technical support and training
IV. Public policy
V. Infrastructure

The STAT review described an ideal comprehensive injury prevention program as beginning with an overall plan to address the major injuries affecting the residents of the state, using proven prevention strategies, operating through a coordinated network of community-based organizations and reaching the segments of the population most affected by specific injuries.

The review team offered the following challenge in its report to the Injury Prevention Program, which laid the foundation for the planning process to follow:

> "The challenge will be to maintain the program's enviable record of program development, expanding its team by adding new state and local partners, while at the same time strengthening its infrastructure and its support network within MDCH. One approach is to embark on an inclusive planning process that both educates new players and energizes experienced players. Clearly establishing a common vision across agency, geographic and disciplinary lines will go a long way toward preparing the program for the future. It will also reinforce the perception of MDCH as the state's advocate for injury and violence prevention among the other state-level partners."[6]

This assessment was conducted when MDCH had a strong violence prevention section, which was eliminated in January of 2002 due to state budget cuts. This has had a negative impact on the state's capacity for injury prevention.

Stakeholder Survey Project

The STAT review was followed in 2001 by a survey of key injury stakeholders conducted by the Michigan Public Health Institute (MPHI) in order to assess the program's credibility as a focal point for injury prevention in the state of Michigan. It

should be noted that this assessment was conducted when the IPS had a separate violence prevention program.

The primary purpose of the survey was to answer the following questions:

1. Who do the stakeholders perceive as responsible for key injury prevention activities in the state?

2. Where do stakeholders go for injury and violence data and prevention information?

3. What do the stakeholders believe to be the role of the Michigan Injury Prevention Program related to the five core components of a model state injury prevention program?

In order to gather information to answer these questions, MPHI scheduled and conducted the key injury prevention stakeholder interviews; compiled and analyzed the data; and completed and submitted a final report. The most frequent themes that emerged were the need for increasing the Program's visibility, the need for more grant funding, and more opportunities for training.[7]

CDC Grant

The STAT review provided important background for writing the CDC Core Injury Capacity-Building Grant and encouraged the Injury Prevention Program to embark on an inclusive planning process to educate new players and energize experienced partners. The purpose of the grant is to build capacity at the state level to operate as a model injury prevention program as defined by the SAFE STATES Model.

The grant has four goals and related objectives for building capacity in injury prevention:

I. Establish a mechanism to strengthen collaborative relationships with a broad coalition of partners and to provide input on program priorities.
II. Build capacity, credibility, and visibility within the Injury Prevention Program to serve as the focal point and coordinating entity of MDCH for each of the five components of a model injury prevention program for the major causes of injury morbidity and mortality in the state.
III. Establish ongoing access to and analysis of injury data using core data sets recommended in the *Consensus Recommendations for Injury Surveillance in State Health Departments.*
IV. Develop and implement a plan to evaluate program process, effectiveness, and impact, and share findings with local, state, and national colleagues.

The Injury Prevention Section was charged with developing and convening a state-level injury prevention workgroup, as well as developing and implementing the process for creating a state injury prevention plan.

PLANNING PROCESS

Two planning groups were formed: an Injury Prevention Workgroup and an Injury Prevention Task Force. The smaller 27-member Injury Prevention Workgroup served as a core group to review injury data in order to:

- assist in identifying program, policy and data gaps and strengths related to injuries in Michigan;
- determine injury priorities related to causes of injury mortality, injury hospitalizations and injury emergency department visits; and
- draft recommendations for core component areas.

A larger 50-member Injury Prevention Task Force, which included members of the Workgroup, served as a think tank to build upon the work of the Workgroup to:

- recommend specific actions to build the state's capacity for injury prevention and
- recommend specific actions to reduce injury mortality and morbidity in Michigan.

Members of both the Workgroup and Task Force were key stakeholders in injury prevention and control and represented state and local agencies, private and non-profit groups, academia, law enforcement, public health, health care and injury prevention coalitions. The individuals in both groups, through sharing of their experience and knowledge, provided critical input into the development of a plan that would strengthen the state's overall capacity in the five core areas of a model state injury prevention program.

Strengths and Gaps Analysis

The strengths and gaps analysis, completed by the Workgroup at its first meeting, formed a background to the recommendations that emerge in later meetings. To complete this analysis, members met in three small groups and brainstormed program policy and data gaps and strengths related to injuries in Michigan. The three groups were: 1) Data: collection, analysis and dissemination; 2) Interventions: design, implementation and evaluation; and 3) Public Policy. All three groups were encouraged to discuss cross-cutting issues within each of the five core components. Cross-cutting issues included coordination and collaboration and eliminating health disparities in injury outcomes. Although two of the core components did not have a specific group focus, gaps and strengths related to technical support and training and infrastructure emerged in the three small group discussions.

Setting Priorities for Injury Prevention

Throughout several meetings, the Workgroup and Task Force participated in group exercises to prioritize Michigan's leading causes of injuries. These exercises and the results of the group discussions enabled group members to determine actual numerical scores and rankings for injury causes. A staff epidemiologist did the initial analysis of the ten leading causes of injury mortality, injury hospitalizations and injury emergency department visits. Injury priority rankings were then determined by a composite score that reflected these items:

1. Severity of the injury cause (how serious is it?)
2. Preventability (do proven interventions exist?)
3. Feasibility (how feasible is prevention considering the political environment, current laws and resources?)
4. Significant health disparities (are there significant differences in injury rates among various population groups?)

By comparing the composite scores for each injury cause, members determined that the top priority causes for the plan are:

- Falls – Unintentional
- Motor Vehicle Crash – Occupants
- Suicide/Homicide – Firearm Related
- Poisoning- Suicide/Self-Inflicted and Unintentional

At the last Task Force meeting, members were asked to complete a written evaluation to rate the quality of the planning process and their participation in the process. Overall, there was strong consensus that the process was valuable and was inclusive of multiple injury prevention perspectives.

Core Components of A Model State Injury Prevention Program

The strategic plan recommendations relate to the five core components of a model state injury prevention program, as outlined by the State and Territorial Injury Prevention Directors' Association in their September 2001 *STAT Review Guide*.[8] The five core components are:

Data: Collection, Analysis and Dissemination: The systematic and ongoing collection, analysis and dissemination of injury data, including information on incidence, magnitude, at-risk populations, causes and other circumstances resulting in fatal and non-fatal injuries.

Interventions: Design, Implementation and Evaluation: The development, focused application and evaluation of science-based interventions to effectively reduce the impact of injuries."

Technical Assistance and Training: The development of a knowledgeable and skilled workforce to plan, implement and evaluate injury interventions and to respond to requests for assistance from other partners and the public.

Public Policy: The effective communication of scientific information on magnitude of and risk factors for injuries, cost impact, and successful interventions to policy makers to assist them in making informed decisions.

Infrastructure: The framework of people (dedicated staff and networks of partners), financial and other resources that provide leadership, coordination and support for injury prevention activities in the state.

Criteria for Inclusion of Recommendations in the State Plan

Recommendations in the Michigan Injury Prevention Plan were developed using the following criteria:

- Optimizes cooperation/coordination of injury prevention efforts
- Considers cost/benefit
- Is tempered by political realities
- Encourages involvement and accountability of multidisciplinary partners
- Measurable progress can be achieved in three years (2003 – 2005)

Focus of the Strategic Plan

The strategic plan makes recommendations to build the core capacity of the state injury program as well as impact the top four priority causes of injury in Michigan. **Core capacity recommendations** focus on the elements of a state injury program - data, interventions, technical support and training, public policy, and infrastructure - and how these elements strengthen the state injury program's ability to impact all injury causes. **Injury reduction recommendations** focus on how to reduce morbidity and mortality from the top four priority causes of injury.

Preceding all of the recommendations are short descriptions of the gaps and needs identified by the Injury Prevention Workgroup, STAT Review and Stakeholder Survey.

While the scope of this plan is quite ambitious considering the currently available resources for injury prevention in Michigan, it does provide a clear vision for future direction and growth of the program.

Recommendations Related to Core Components

DATA - Collection, Analysis and Dissemination:

The need for more frequent and comprehensive data reports available in web-accessible, user-friendly formats was identified by all the groups reviewing data needs. These reports should be widely disseminated to both the public and professionals. Organizations already collecting and analyzing data need to continue to develop ways to collaborate and share data. Other needs identified were to publish at least one report annually, improve completeness of E-coding and improve access to hospital discharge data.

The Michigan Department of Community Health (MDCH) should collaborate with the Michigan Health and Hospital Association (MHA) and the Michigan Health Information Management Association (MHIMA) to convene a core Data Workgroup with expertise to examine the state's injury data infrastructure and injury data sources and make recommendations to improve quality of injury data.

The Data Workgroup should:

- Identify all the groups responsible for relevant injury data sources.
- Describe data sources that are necessary for injury prevention planning and programming.
- Identify problems and needed improvements with data sources such as MIDB.
- Identify sentinel events that should be under surveillance.
- Increase level and accuracy of E-coding in hospital discharge data.
- Review and act upon recommendations of previous data workgroups.
- Develop a plan with recommendations for improving data infrastructure and injury data sources while considering existing recommendations.
- Determine when it is important that MDCH have injury data by state mandate.
- Make recommendations regarding training provider groups in data collection and E-coding (e.g., medical record abstracters, Medical Examiner's office).
- Identify barriers to researchers' access to hospital discharge data and develop ways to improve access through cooperative agreements with MDCH and MHA.

Seek resources to ensure funding for critical injury surveillance data sources such as Michigan Emergency Department Community Injury Information Network (MEDCIIN) and the Uniform Medical Examiner Data System (ME Reporting System) for selected causes of injuries.

The Data Workgroup should:

- Publicize these data sources on the MDCH Injury Prevention website and through annual reports.

- Identify other potential sources of funding such as grants to expand the data sources and make them more useful to partners.

Develop, publish and disseminate annual comprehensive reports of injury data.

MDCH and partners from the Data Workgroup should prepare reports that:

- Include data related to injury mortality, injury hospitalizations and injury emergency department visits.
- Describe the limitations of each data source and the impact of these limitations (e.g.. less than 100% E-coding).

Ensure that injury data are web-accessible and data sources include injury mortality, injury hospitalizations and injury emergency department visits.

MDCH and partners from the Data Workgroup should:

- Maintain injury data on the MDCH web site, including selected interactive functions.
- Handle and present data to ensure confidentiality.

MDCH should provide data to support the development of Healthy Michigan 2010 injury objectives.

INTERVENTIONS – Design, Implementation and Evaluation:

Promotion of best practices and programs with proven effectiveness was a theme that emerged from all groups discussing needs for interventions. The Workgroup specifically identified the need for the state and other organizations to continue to build collaborative interventions for injury prevention. Other needs discussed included exploring ways to increase injury prevention capacity in local health departments and other agencies through technical assistance and grant funding, and addressing emerging injury priorities (e.g., falls and suicides) and new target groups such as the older adult.

Information on the best programs, practices and interventions with proven effectiveness to address the leading causes of injury should be publicized.

MDCH, partnering with state and local agencies, should:

- Develop standards and criteria for choosing programs, practices and interventions to publicize.
- Review programs, practices and interventions using an established methodology.
- Determine mechanisms for dissemination of the review findings.
- Maintain credible web links to appropriate programs.

Develop or implement evidence-based prevention programs to address *emerging* injury prevention issues such as falls, suicides, poisoning and firearm-related injuries.

MDCH, partnering with state and local agencies, should:

- Identify emerging issues from review of the state's injury data.
- Closely examine the political realities of all suggested interventions.
- Secure funding to focus on emergent issues from diverse sources, including state agencies and key stakeholders.
- Facilitate linkages between existing prevention programs and potential users in the state of Michigan.
- Conduct or facilitate program evaluation.

Develop a mechanism to bring people in Michigan together to focus on current injury prevention efforts, what works and what looks promising.

MDCH, partnering with state and local agencies, should:

- Conduct an assessment of training and information needs of individuals in Michigan who work in injury prevention.
- Determine the most effective mechanisms to bring people together.
- Identify and develop networks of injury prevention specialists.
- Identify injury prevention-related meetings, seminars, conferences, etc., being held by organizations around the state and explore means to coordinate efforts.
- Publicize the injury prevention-related meetings, conferences, seminars, etc., being conducted by other organizations.
- Hold a statewide conference or annual summit for information sharing, strategic planning, dissemination of emerging information and best practices, and provision of training.
- Support regional training efforts, including those in the Upper Peninsula, through funding and provision of expertise.

Identify and develop ways through which agencies and organizations can maintain ongoing communication and collaboration on interventions, such as through a virtual statewide community.

MDCH, partnering with state and local agencies, should:

- Identify and disseminate information about injury-related partnerships in the state, including their injury focus and programmatic resources.
- Determine what communication technologies are common to the majority of agencies involved in injury prevention in Michigan (e.g., e-mail, Internet access, etc.).

- Describe how agencies and organizations are currently communicating and networking with their partners.
- Determine the feasibility and effectiveness of creating a state network that involves the MDCH Injury Prevention Program and local health departments, which would facilitate networking among programs in their catchment area.

Determine baseline information on consumers' awareness and motivation to change related to specific injury prevention issues.

MDCH, partnering with state and local agencies, as well as academic researchers, should:

- Identify existing data sources that contain information on injury awareness and motivation to change and analyze data for identified target populations.
- Incorporate appropriate questions into extant surveys (e.g, MSU State of the State, BRFSS).
- Work with the Michigan Information Center in the Department of Management and Budget and the Census 2000 project at Michigan State University to stay current on demographic trends in the state.

Implement creative approaches for developing public and professional awareness in injury prevention that will motivate and enable people to proactively change their behavior.

MDCH, partnering with state and local agencies, should:

- Identify appropriate target populations and audiences.
- Utilize effective public awareness strategies that are tied to changing behaviors (e.g., social marketing).
- Establish links with universities to take advantage of existing expertise in behavior change and/or health promotion.
- Conduct or facilitate program impact assessment.

Build comprehensive, multi-faceted media campaigns on specific injury prevention issues.

MDCH, partnering with state and local agencies, should:

- Develop campaigns around health and injury topics of the month. (e.g., child passenger safety in February; older adults' month in May).
- Utilize media sources for dissemination.
- Encourage coordination and collaboration of injury prevention partners so that media campaigns can be utilized and/or adapted by community-based injury prevention partners and programs.

TECHNICAL SUPPORT AND TRAINING:

The groups reviewing needs for technical support and training recommended increased training opportunities in injury prevention statewide, including distance learning for both state and local programs. Building technical support capabilities in such topics as evaluation and data analyses was also underscored. There is a need to identify what types of technical support and training opportunities exist and to develop a means to disseminate this information through web-based systems. Ongoing training and staff development in injury prevention are critical for staff working at the state and local levels.

Identify, catalog and evaluate existing research and evidence-based injury prevention curricula.

MDCH, should:

- Develop a methodology that includes standards and criteria for choosing curricula.
- Ensure that the review process defines and captures research and evidence-based programming for both unintentional and intentional injuries.
- Review extant curricula for both unintentional and intentional injuries using the established methodology.
- Identify state and community-based injury prevention specialists and providers by target age group and injury cause.
- Ensure that the cataloging and evaluation of curricula be kept up-to-date and maintained on a state web site and a clearinghouse.

Develop an injury prevention kit and/or resource guide to be used by the public and injury providers and publicized in media campaigns.

MDCH, partnering with state and local agencies, should:

- Utilize resources from statewide injury partners and national injury prevention organizations to develop the kit/resource manual.
- Include materials for both unintentional and intentional injury prevention.
- Provide print and audiovisual resources in the kit/resource guide to reflect cultural diversity.
- Include guidelines for community assessment of injury prevention needs and evaluation of programs and interventions.
- Organize fact sheets, information on evidence-based interventions, networking guidelines, etc., for use by providers or the public.
- Make the kit/resource guide available both through a clearinghouse and through web-based access.
- Make consultation available by an injury prevention specialist when the kit/resource guide is requested.

Provide centralized technical support and training to develop state and community-based injury prevention capacity.

MDCH, partnering with state and local agencies, should:

- Focus upon skill-building in specific injury prevention areas and collaboration with injury prevention partners.
- Include web-based learning opportunities developed by MDCH or other reputable injury prevention partners.
- Utilize a "train the trainer" model to disseminate injury expertise and build a cadre of injury prevention specialists statewide.
- Coordinate efforts with adult learning centers, universities, and other educational units to integrate injury prevention into their curricula.
- Develop a cost effective method for agencies in the Upper Peninsula to participate in statewide meetings.

PUBLIC POLICY:

The Injury Prevention Workgroup identified three critical issues related to public policy: 1) there is a lack of central leadership in the state to bring all injury partners together for education, advocacy and policy recommendations; 2) proponents of safety legislation are not usually vocal and face barriers to sharing knowledge with law makers; and 3) the state is not capitalizing on and publishing enough about the science and preventability of injuries. These public policy issues were also highlighted in the STIPDA Assessment and stakeholder survey.

Develop a focal point or clearinghouse for injury prevention by having one central, well-known program serve as an information source for injury data, injury prevention programs, laws and research.

MDCH, partnering with state and local agencies, should:

- Identify multiple funding sources for the clearinghouse.
- Establish accountability for a leading research institution or agency (MSU/UM/WSU) to develop this entity.
- Form an Advisory Board to reflect all information collecting agencies.
- Develop a mission statement that includes providing information on injury data, prevention programs, laws and research to public, private and grassroots organizations.
- Build linkages with resources available from other program areas.

MDCH and public injury prevention programs should form partnerships with a major Midwest university and the Michigan Council of Foundations to establish a Michigan Institute for Injury Prevention that will study the costs and economics of injury in Michigan and the value of injury prevention programs.

Develop grassroots support for injury prevention programs, laws and research by establishing a statewide coalition with public and private partners.

MDCH, partnering with state and local agencies, should:

- Examine other statewide injury prevention coalitions to determine the most effective models for governance, advocacy, visibility and information sharing.
- Utilize and strengthen existing state injury prevention networks by recruiting influential stakeholders, researchers and leaders in the injury prevention field, and leading advocacy organizations and people who are most impacted.
- Build consensus on injury prevention as one of the most attainable strategies to improve the public health and well-being of the citizens of Michigan.
- Hold a planning summit to determine mission, goals and strategies for communication and dissemination of information.

Develop an active communication system with local partners (listserve) to share information on legislation related to injury and other time-sensitive information.

The communication system should:

- Provide information to key decision makers on the magnitude, cost and preventability of the injury problem.
- Enable inter-coalition public policy groups and legislative liaisons to meet regularly around legislation related to injury.
- Provide information and technical support for local policy changes that support safe environments.

INFRASTRUCTURE:

In assessing the state's infrastructure for injury prevention, the Injury Prevention Workgroup agreed that there is no central leadership or one identified agency that exists to address statewide injury prevention problems and solutions and to coordinate resources. The stakeholder survey further noted that an increase in staff, resources and capacity within MDCH is needed to support statewide coordination of injury prevention programs. Increased grant funding for local injury prevention programs and enhanced technical assistance to local health departments were also recommended.

MDCH should establish, maintain and enhance a core focus for the state's injury prevention activities (initiatives and funding).

MDCH should:

- Provide adequate funding and dedicate key staff within the MDCH Injury Prevention Section to provide leadership and to address the scope and range of the injury (intentional and unintentional) problem.
- Maintain a state Injury Prevention Task Force.

MDCH should assess injury prevention resources and needs in government, private, and non-profit agencies to develop an overview of the injury prevention infrastructure in Michigan.

MDCH should:

- Form a working group of state agency representatives to compile information on state-level funding, policies, programs, data, etc., related to injuries.
- Review existing community resource/needs assessments.
- Identify key agencies for injury prevention in each community.
- Set priorities to address statewide injury prevention needs.
- Direct and/or coordinate funding to support priorities and address needs.

MDCH should promote coordination of MDCH funding and activities with other agencies.

MDCH should:

- Make grant opportunities available to appropriate groups and require that they partner and coordinate injury prevention activities with other pertinent groups.
- Coordinate and complement other available funding sources for injury prevention programs and coalition development at the local level.

Recommendations Related to Priority Causes of Injury

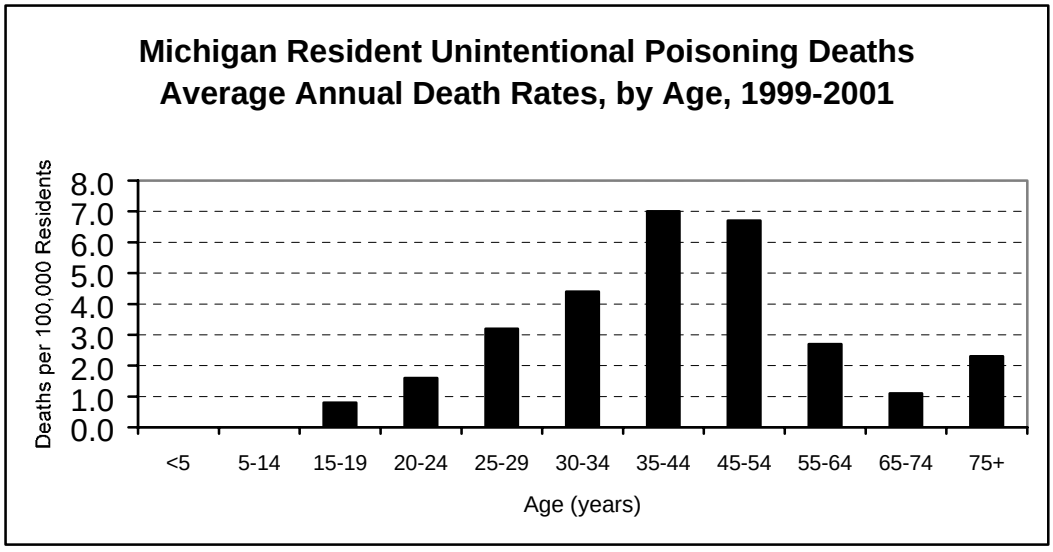
Poisoning: Unintentional/Self-Inflicted

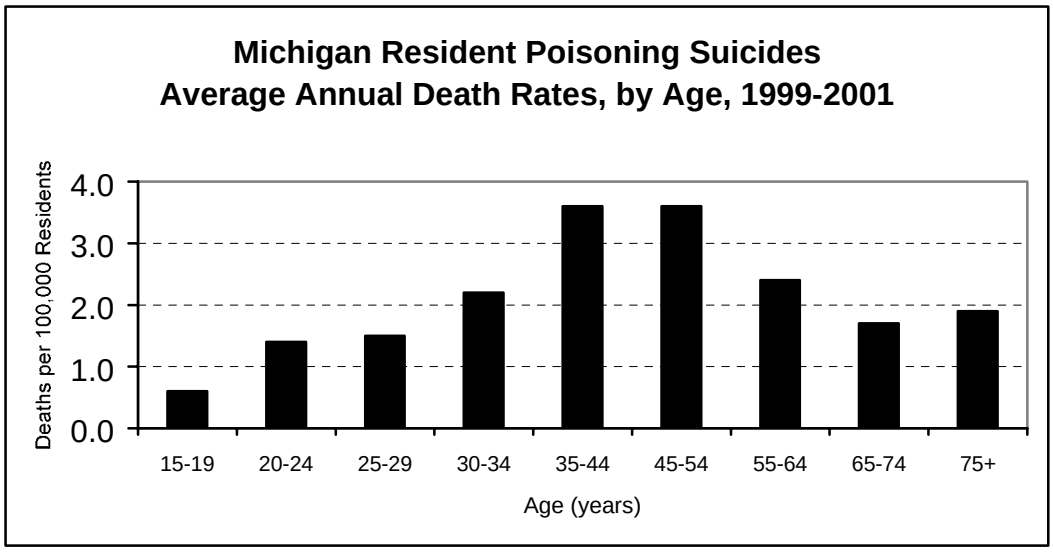
Between 1999 and 2001, an average of 317 Michigan residents died annually due to unintentional poisonings. The corresponding average annual death rate was 3.2 deaths per 100,000 residents. Death rates for males were more than twice the rate for females. After age 14, rates increased with age peaking with the 35-44 year old age group. Thereafter, rates decreased with age until the oldest age group, whereupon rates again increased. Rates for black residents were nearly twice the rates for white residents and residents of other races. Black males aged 45-54 had the highest unintentional poisoning death rate.

Between 1990 and 2001, the number of fatal unintentional poisonings among Michigan residents ranged from 106 in 1992 to 337 in 2001. Michigan unintentional poisoning death rates were consistently lower than national rates throughout the period. Both nationally and in Michigan, death rates for this cause increased dramatically during the study period. In Michigan, the unintentional poisoning death rate nearly tripled between 1990 and 2001.

An average of 189 Michigan residents died annually due to suicide via poisoning between 1999 and 2001. This corresponds to an average death rate of 1.9 per 100,000 residents. The death rate for this cause was 53% greater for males than for females. Those aged 35-54 had the highest rates. White residents had a death rate that was 2.2 times the death rate for black residents. The number of poisoning suicides among Michigan residents ranged from 170 in 1995 to 250 in 1992. The rate of poisoning suicide declined slightly in the U.S. and in Michigan between 1990 and 2001.[9]

The *CDC Injury Fact Book 2001-2002* states that more than 90% of poison exposures occur in the home and that most poisoning deaths are caused by pills, alcohols, gases and fumes and chemicals.





Infrastructure

- The MDCH Injury Prevention Section should convene a Poison Prevention Workgroup consisting of representatives from at least the Poison Control Centers, MDCH Bureau of Epidemiology, Substance Abuse and Injury Prevention, to provide guidance to the Section regarding primary prevention of poisoning.

Data

- The Poison Prevention Workgroup should develop a data analysis plan and prepare a report based on various data sources, including Poison Control Centers, hospital discharge (MIDB), emergency department (MEDCIIN), death certificates, Medical Examiner and Child Death Review. The role of poisoning relative to other types of injuries should be considered.

- The Poison Prevention Workgroup should review deliberations of the Poison Control Center death reviews and make recommendations for prevention.

Interventions

- The Poison Prevention Workgroup should identify and compile information on MDCH programs that deal with poisoning.

- The Poison Prevention Workgroup should review data, conduct an inventory of best practices related to poisoning prevention and prepare recommendations for effective prevention interventions for the top five causes of poisonings in Michigan.

- The MDCH Injury Prevention Section should publicize the toll-free Poison Control number and provide poison prevention educational materials (developed by the Poison Control Centers) through Safe Kids Coalitions and Chapters, child passenger

safety technicians and instructors, and other partners who work closely with children and parents.

- ❖ The MDCH Injury Prevention Section website should provide a link with the Poison Control Center website.

Technical Support & Training

- ❖ Poison Control Centers should work with the Michigan College of Emergency Physicians to develop training materials for ED physicians to increase their awareness of the expertise available at Poison Control Centers.

Public Policy

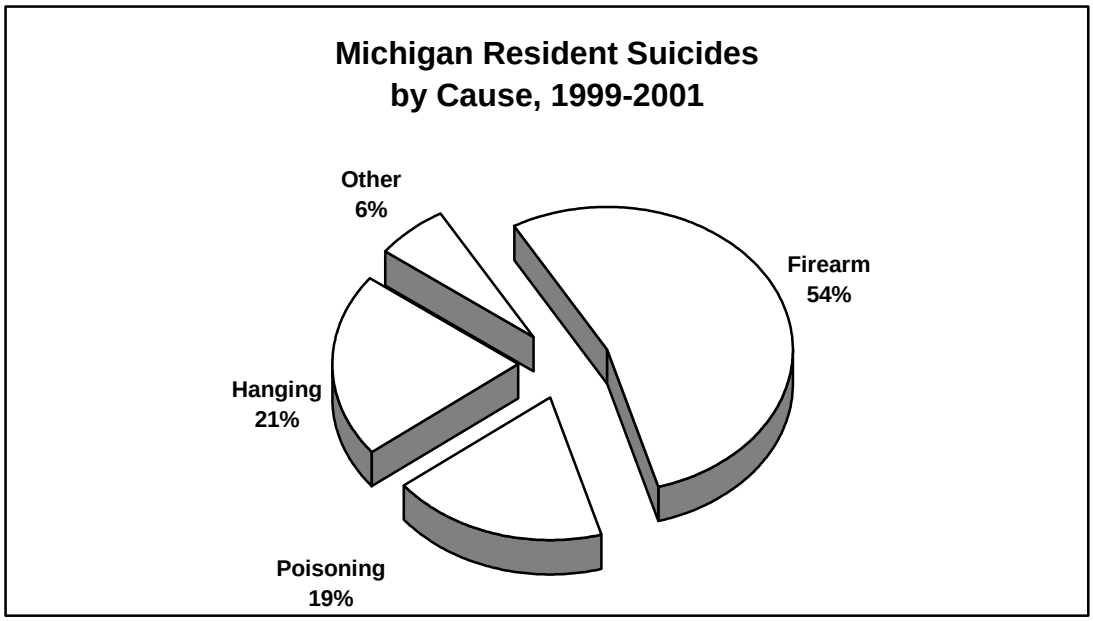
- ❖ The Poison Prevention Workgroup should conduct an inventory of local and national policies that impact poisoning and compare and contrast to Michigan policies.

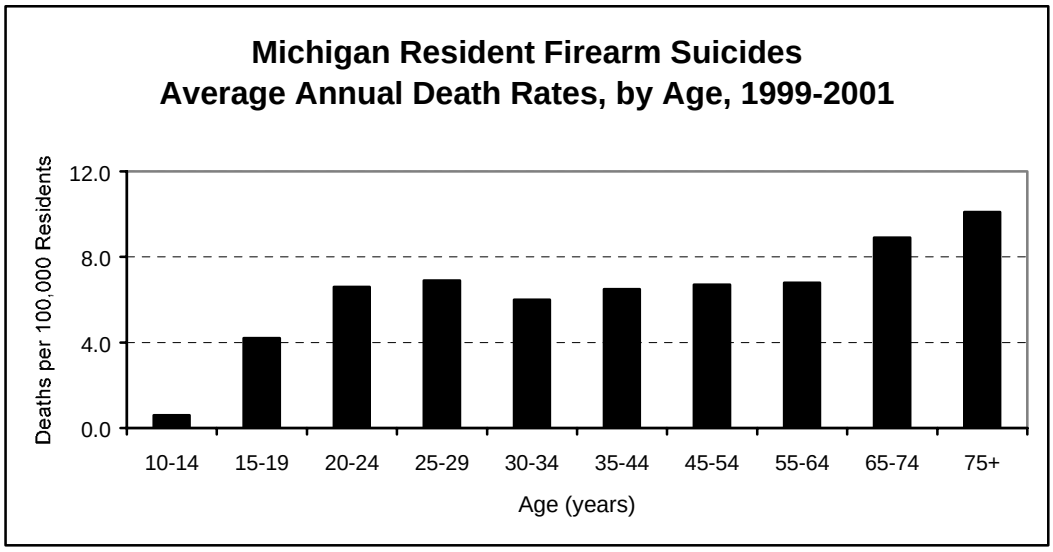
Firearm-Related Suicide and Homicide

Suicides: An average of 536 Michigan residents committed suicide with a firearm annually between 1999 and 2001. This corresponds to a death rate of 5.4 per 100,000 residents. Suicide by firearm was the leading cause of suicide, accounting for 53.8% of the total number of suicides.

The firearm suicide rate for males was more than eight times the rate for females. Rates were fairly consistent for those between the ages of 20 and 64, but increased for the two oldest groups. This trend was true for males but not females. Among the races, whites had the highest rate (6.0), which was 58% higher than the rate for blacks (3.8) and six times the rate for other races (1.0). The highest overall rate (28.2) was among white males aged 75 and older.

Between 1990 and 2001, the number and rate of firearm suicides among Michigan residents peaked in 1991 (658 deaths, 7.0 per 100,000 residents) and was lowest in 2000 (529, 5.3). Both Michigan and the nation experienced decreasing rates throughout this period, with Michigan's rates consistently lower than national rates.



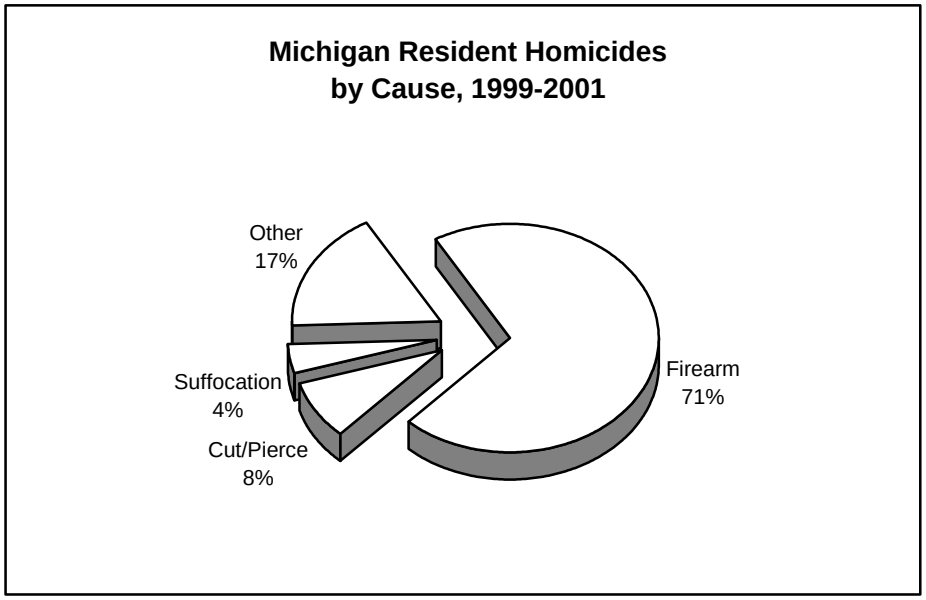


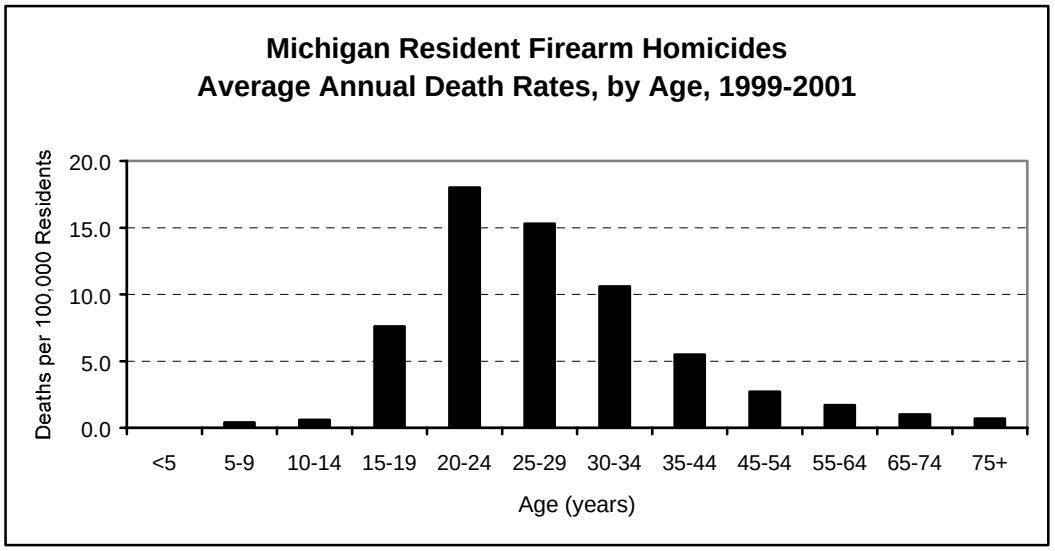
Homicides: An average of 504 firearm homicides occurred annually among Michigan residents between 1999 and 2001. The corresponding death rate for this cause was 5.1 per 100,000 residents. A firearm was used in 70.3% of homicides.

The death rate for males was nearly six times the rate for females. Death rates were elevated among those aged 20-34, peaking among 20-24 year olds. The rate for black residents was nearly 20 times the rate for white residents. The group with the highest rate was 20-24 year old black residents with a rate (186.8) that was 36.6 times the statewide rate.

The number of firearm homicides that occurred between 1990 and 2001 among Michigan residents ranged from a low of 497 in 2001 to a high of 783 in 1991. The

death rates in these years were also the lowest and highest during this time period (5.0 and 8.3, respectively). Michigan's firearm homicide rate was consistently higher than the national rate. Rates in Michigan and the U.S. declined throughout this period, appearing to level off recently. Between 1991 and 2001, Michigan's firearm homicide rate decreased 40%.[10]





Because firearms are the mechanism of death in the majority of suicides and homicides in Michigan, solutions must focus on gun violence prevention. Yet, as many sociologists and public health experts have noted, violence is endemic to our culture, making discussions of prevention and education difficult. The Michigan Partnership to Prevent Gun Violence states that there are several theories as to why gun violence is declining: more community policing, less drug and alcohol abuse, more criminals behind bars, more concealed weapons permits, the state of the domestic economy and/or more

emphasis on prevention and education. Still, the Partnership acknowledges that many strategies to prevent firearm-related violence and deaths are still in their infancy.[11]

Infrastructure

- MDCH, in collaboration with the Michigan Partnership to Prevent Gun Violence and other agencies, should facilitate the formation and functioning of a communication/collaboration network focusing on firearm morbidity and mortality.

- MDCH, in collaboration with the Michigan Partnership to Prevent Gun Violence and other agencies, should investigate all possible means of obtaining funding to develop a focus on firearm-related injuries, specifically developing and implementing an effective, evidence-based firearm injury prevention and education safety program.

Data

- MDCH should strongly support efforts to collect comprehensive firearm morbidity and mortality data.

- MDCH should facilitate the collection of firearm mortality data and participate in the National Violent Death Reporting System.

- MDCH should identify the demographics of individuals with the highest rates of intentional firearm injuries.

- The Injury Prevention Clearinghouse should serve as a warehouse for the most current and comprehensive firearm-related homicide and suicide data available in the state.

Interventions

- MDCH, in collaboration with the Michigan Partnership to Prevent Gun Violence and other agencies, should develop and implement criteria for determining effective or promising programs, practices and interventions in firearm-related homicide and suicide.

- MDCH, in collaboration with the Michigan Partnership to Prevent Gun Violence and other agencies, should support the implementation at state and local levels of effective, evidence-based firearm safety education initiatives.

- MDCH, in partnership with university-based researchers, should examine and evaluate the effectiveness of current state-sponsored firearm injury prevention efforts.

- MDCH, in collaboration with the Michigan Partnership to Prevent Gun Violence, the Michigan Association of Suicidology and other agencies, should identify effective evidence-based suicide intervention strategies and incorporate these into their firearm safety initiatives.

- Resources should be sought to develop and implement a public information campaign on firearm safety, with an emphasis on informed decision-making around firearm ownership and changing the social norms around parents asking about firearm ownership and storage in the homes that their children visit, that would collaborate with existing state firearm safety and education programs.

- MDCH should work with the Michigan Chapter of the American Academy of Pediatrics to educate their members and strongly encourage them to engage in anticipatory guidance on the issues of firearms, suicide and violence with patients and their families.

- MDCH and the Family Independence Agency should continue to support primary and secondary prevention and intervention programs for intimate partner violence and sexual assault.

- MDCH should require that all MDCH funded firearm injury, violence, intimate partner violence, and sexual assault prevention efforts should have both a process evaluation and impact assessment.

Technical Support and Training

- MDCH should collaborate with other state agencies' training efforts focusing on firearm safety and education.

Public Policy

- MDCH should promote through firearm safety education and public service campaigns that all firearm injuries and deaths in Michigan are a public health issue.

- MDCH, in collaboration with the Michigan Partnership to Prevent Gun Violence and other agencies, should continue to support strong enforcement of substance abuse laws and firearm regulations in Michigan and incorporate discussion of these into firearm safety initiatives sponsored by MDCH.

- MDCH should partner with other state and local agencies to develop firearm safety campaigns that target identified high-risk populations.

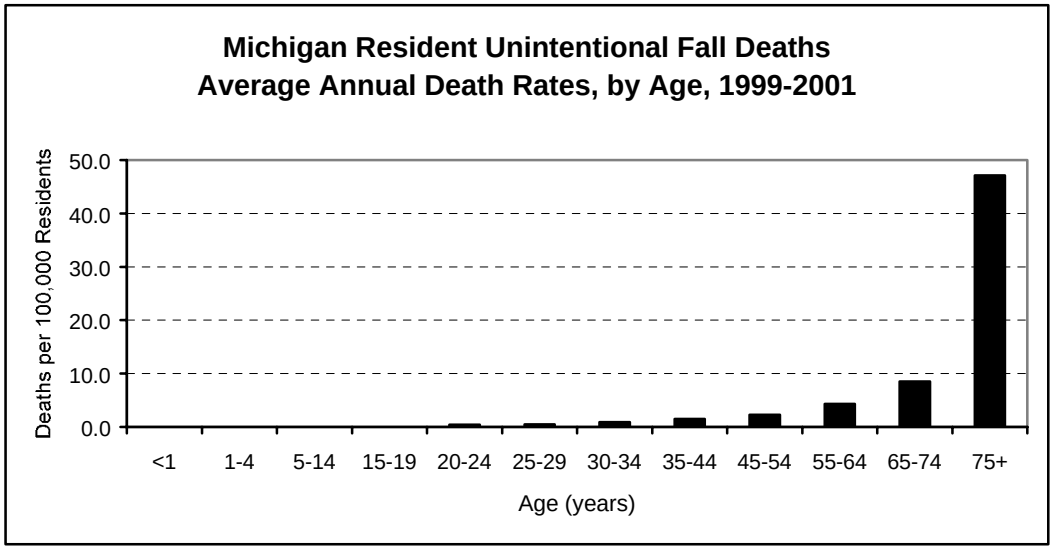
- MDCH, in partnership with university-based researchers, should examine and evaluate the impact and the effectiveness of Michigan's current CCW (concealed-carry weapons) laws in reducing firearm injuries in Michigan.

Unintentional Falls in Older Adults Over the Age of 65

An average of 437 Michigan residents died annually between 1999 and 2001 as a result of unintentional falls. This corresponds to a death rate of 4.4 per 100,000 residents. The death rate for males (5.0) was 32% greater than the rate for females (3.8). Death rates increased with age with the most dramatic increase among those aged 75 and older. The rate for whites (4.9) was 88% greater than the rate for blacks (2.6). The difference between the races was especially substantial among women (white females: 4.4, black females: 1.7).

Falls were the second leading cause of unintentional injury death in Michigan. Between 1990 and 2001, the numbers and rates of resident deaths resulting from unintentional falls ranged from a low of 236 deaths (2.5/100,000) in 1993 to a high of 503 deaths (5.1/100,000) in 2001. While Michigan's rates increased during 1990-2001, they were consistently lower than national rates. However, the state has recently had a dramatic increase in fatal falls; from 1998-2001, the rate increased 55%.[12]

Fall injuries usually result from multiple underlying risk factors that are intrinsic (personal) or extrinsic (environmental) to the older adult. With both community-dwelling and institutional seniors, the risk of falling appears to increase with the number of risks present. Risk factors can include medical factors (i.e., acute and chronic diseases), behavioral factors (i.e., lack of exercise), environmental factors (i.e., clutter and slippery floors), or psychosocial factors (depression).[13] Problems with gait and balance, polypharmacy and visual deficits are some of the most prevalent risk factors among those who have fall injuries.



Infrastructure

- MDCH should reconvene and expand the membership of the Fall Prevention Workgroup to include public health, health care, and agencies that work with older adults.

- The Fall Prevention Workgroup should assist MDCH in implementing the recommendations in the *White Paper on Fall Prevention Efforts in Michigan,* reviewing existing fall prevention efforts in Michigan and nationwide, and providing direction for new fall prevention program development.

- Resources should be sought to support staff resources devoted to prevention of injuries among older adults, including fall prevention.

- Resources should be sought to fund evidence-based community fall prevention projects, public education and training of professionals.

Data

- MDCH should monitor the magnitude, characteristics and costs of falls and fall injuries specifically for older adults through analysis of existing data sources, including death certificates, hospital discharge, emergency department and risk factor data bases.

- MDCH should work with the Data Workgroup to improve the level and accuracy of E-coding for fall-related injuries on hospital discharge data and disseminate the results via annual reporting and the MDCH injury website.

Interventions

- The Fall Prevention Workgroup should develop and implement criteria for determining effective or promising programs, practices, and interventions in fall prevention for older adults.

- The Fall Prevention Workgroup should identify, evaluate, and catalog evidence-based fall prevention programs and interventions and develop marketing strategies for dissemination to injury practitioners, health care providers and older adult advocates.

- The Fall Prevention Workgroup should partner fall prevention programs with other health promotion programs such as physical fitness, osteoporosis education and bone mineral testing, either on the statewide or local level.

- The Fall Prevention Workgroup should determine the most effective messages, materials and delivery mechanisms for fall prevention public education, focusing on risk factor identification, behaviors that reduce risk and evidence-based treatment and behavioral interventions.

Technical Support and Training

- The Fall Prevention Workgroup should work with existing professional organizations, injury prevention practitioner groups and older adult advocates to develop and expand resources to meet their training needs for fall risk assessment, data collection and coding and evidence-based interventions.

- The Fall Prevention Workgroup should determine the most effective strategies for educating injury practitioners, health care providers and older adult advocates in fall risk assessment, interventions to reduce fall risks and interdisciplinary case management of older adults who have fallen.

- The Fall Prevention Workgroup should establish a network of practitioners, professionals and advocates for older adults at the local level for dissemination of fall prevention information, technical assistance and training.

- The Fall Prevention Workgroup should make fall prevention resources such as fall risk assessment tools, evidence-based programs and names of fall prevention experts available on the MDCH injury website.

Public Policy

- Information should be provided to policy makers on fall injury and prevention for older adults.

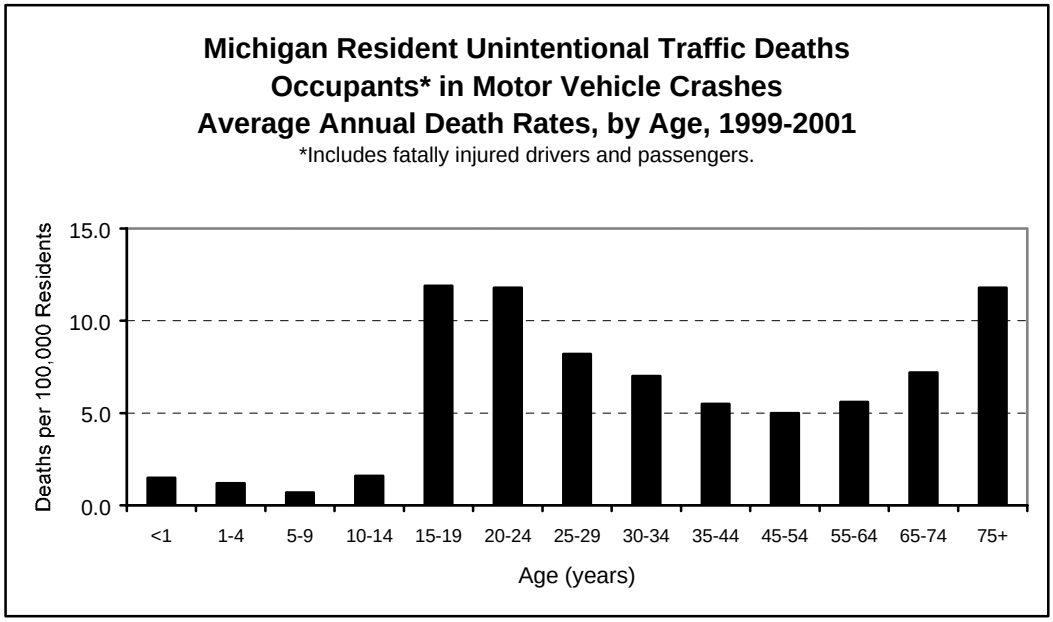
- Funding resources should be sought for fall injury prevention programs for older adults.

Motor Vehicle Crashes – Occupants

Motor vehicle crashes are the leading cause of unintentional injury death in Michigan. An average of 610 Michigan residents died annually from 1999 -2001 as motor vehicle occupants involved in traffic crashes. This corresponds to an annual death rate of 6.1 per 100,000 residents. Death rates for males (8.1) were 88% greater than for females (4.3). Rates were relatively low for those under age 15, but increased significantly for those aged15-24. Thereafter, rates were lower but peaked again for those aged 75 and older. White residents had a rate (6.6) that was 25% greater than for blacks (5.3) and three times the rate for other races (2.1).

Between 1990 and 2001, the number of motor vehicle occupant traffic deaths among Michigan residents ranged from 483 in 2001 to 1,153 in 1990. Death rates for those years also represented the lowest and highest rtes during this period (4.8 and 12.4 deaths per 100,000 residents, respectively). While death rates for both the U.S. and Michigan declined over this period, the decrease was more substantial for Michigan. Between 1990 and 2001, the Michigan motor vehicle occupant death rate decreased by 61%.[14]

Behavioral patterns have been identified in motor vehicle crashes. The *2000 Michigan Traffic Crash Facts Executive Summary* states that "consumption of alcohol continues to be a major factor in Michigan crashes, particularly the more serious crashes." Of Michigan's fatal crashes, 32.9% involved drinking.[15] A direct observation study conducted by the University of Michigan Transportation Research Institute in 2000, estimated safety belt use was 85% for passenger cars, 83.1% for sports utility vehicles, 83.2% for vans and 71.2% for pick-up trucks. Occupants in crashes were 30 times more likely to be killed if they were not wearing their safety belts.[16] Aggressive driving (i.e., speeding, excessive lane changes, and running red lights) and distracted driving are also receiving national and state attention as behavioral factors causing crashes.



In 2002, MDCH convened a Child Passenger Safety Planning Team to develop a three year *Child Passenger Safety Plan*[17] for children birth to 14 years. While the Injury Task Force Motor Vehicle Workgroup acknowledges that injuries to children from motor vehicle crashes are a major public health concern, they did not want to duplicate efforts, and were asked to focus on occupants 15 and over.

Infrastructure

- MDCH should participate on the Governors' Traffic Safety Advisory Commission to provide input on effective public health interventions to promote safety belt and child restraint use among high-risk populations and engineering solutions (i.e., traffic calming) to promote safer driving behavior.

Data

- MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should identify and link data sources related to motor vehicle crashes, focusing on restraint use, the proportion of crashes that results in death or serious injury and the behavioral factors (i.e., alcohol use, distracted driving, excessive speed) related to crash outcomes.

- MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should create a system for dissemination of crash-related data back to local community-based public information and education programs such as Safe Communities.

Interventions

- MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should review what other states have accomplished in coordination of occupant protection activities to avoid duplication of efforts and to streamline funding sources.

- MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should identify, evaluate and catalog existing occupant protection education programs so that they can be utilized by new or emerging community-based educational efforts through web-based access.

- MDCH, in cooperation with SAFE KIDS, should develop and implement a safety belt education program for children aged 9 – 16.

- The Michigan Office of Highway Safety Planning, should continue to allocate funding with a strong emphasis, via education and enforcement, on low safety belt user groups to include males aged 16-24 and pick-up truck drivers.

- MDCH should support the Michigan Office of Highway Safety Planning's efforts to evaluate the need for blood alcohol testing equipment in rural and urban areas based on population and geographic location.

Technical Support and Training

- MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should assess educational needs and develop appropriate training programs in motor vehicle safety and occupant protection for targeted groups including engineers and health care providers such as physicians and nurses.

- ❖ MDCH, in partnership with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should promote the education of law enforcement regarding traffic violations by trucks.

Public Policy

- ❖ MDCH, partnering with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should participate in a legislative forum to educate policy makers of the need for strengthening seat belt laws, child passenger safety laws and graduated licensing laws as strategies to increase restraint use in Michigan and reduce crash-related fatalities and injuries and related high health care costs.

- ❖ MDCH, partnering with the Michigan Office of Highway Safety Planning and the Traffic Safety Association of Michigan, should support enhanced driver's license testing (i.e., having the driver's license renewal with license plate renewal) as a way to ensure safer driving behaviors, especially among older adult drivers who have the highest ratio of motor vehicle deaths to motor vehicle injuries.

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